REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

The abstract has been amended to overcome the objection thereto.

Claims 1-7, 10, and 11 have been amended. Support for these amendments is provided at least in paragraphs 15, 21, 24, 27, 28, 30, 32, and 36 of the specification. The amendments have been drafted to overcome the objection applied to claim 2 and the indefiniteness rejections applied to claims 3 and 7.

Claims 1, 2, 8, and 9 were rejected, under 35 USC §102(b), as being anticipated by Grewing et al. (WO 03/032493), using Grewing et al. (US 7,154,347) as an English translation. Claims 1, 2, 5, 8, and 9 were rejected, under 35 USC §103(a), as being unpatentable over Trichet et al. (US 6,211,747) in view of Bogner et al. (US 2002/0160804). Claims 3 and 10 were rejected, under 35 USC §103(a), as being unpatentable over Grewing in view of Tomesen et al. (US 6,282,249). Claims 3, 6, 7, and 10 were rejected, under 35 USC §103(a), as being unpatentable over Trichet in view of Bogner and Tomesen. Claims 4 and 11 were rejected, under 35 USC §103(a), as being unpatentable over Grewing and, in the alternative, over Trichet, Bogner, and Imai et al. (JP 04358415). To the extent these rejections may be deemed applicable to the amended claims, the Applicants respectfully traverse.

Claim 1 now defines a phase modulation apparatus that inputs, into a phase locked loop, a first modulation signal or both the first modulation signal and a second modulation signal, so as to generate a phase modulation signal, in accordance with a communication mode setting signal identifying a communication mode. The claimed subject matter supports reducing the

degradation of modulation precision and reducing excessive power consumption for a communication employing multimode phase modulation (see specification page 4, lines 17-23).

Grewing discloses correcting an amplitude difference between a first baseband modulation signal (i.e., first digital modulation signal 6 and second digital modulation signal 6') and a second baseband modulation signal (i.e., second analog modulation signal 8) (see Grewing col. 7, lines 42-53). Grewing's invention is directed to providing an apparatus that performs 2-point modulation accurately and that performs 2-point modulation after the amplitude difference is corrected (interpolated) between the first baseband modulation signal and the second baseband modulation signal by 1-point modulation (see col. 7, lines 35-53). That is, Grewing discloses inputting a control signal, which determines whether or not interpolation processing is performed, to switch 35 so as to apply 1-point modulation or 2-point modulation according to the control signal (see col. 4,, line 65, through col. 5, line 1).

However, Grewing's control signal is distinctly different from a communication mode setting signal that is inputted to identify one of a plurality of communication system modes. More specifically, Grewing does not disclose the claimed feature of switching between 1-point modulation and 2-point modulation in accordance with an inputted communication mode setting signal that identifies one of a plurality of communication modes. Therefore, the subject matter of amended claim 1 is different from Grewing.

Trichet discloses, in Fig. 1, adjusting the gain of a DAC 70 using an ADC 80 and a controlling unit 90 such that a frequency deviation for in-band modulation paths is the same as a frequency deviation for out-of-band modulation paths (see Trichet col. 6, lines 9-37). However, Trichet does not disclose determining whether or not to input a second baseband modulation

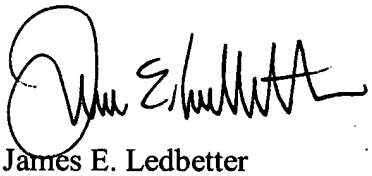
signal to a phase locked loop circuit according to a communication mode setting signal that is inputted for identifying one of a plurality of communication system modes.

Bogner also does not disclose the claimed feature of switching between 1-point modulation and 2-point modulation in accordance with an inputted communication mode setting signal that identifies one of a plurality of communication modes.

Accordingly, the Applicants submit that Grewing does not anticipate and Trichet and Bogner, considered individually or in combination, do not render obvious the subject matter of claim 1. Claims 10 and 11 similarly recite the above-mentioned feature distinguishing apparatus claim 1 from the applied references, but with respect to methods, and neither Tomesen nor Imai are cited for supplementing the teachings of Grewing, Trichet, and Bogner in this regard. Therefore, the rejections applied to claims 3, 4, 6, and 7 are obviated and allowance of claims 1, 10, and 11 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

Respectfully submitted,



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